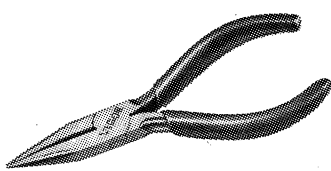


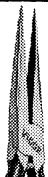
VIGOR®

Tool Company,

Division of: B. JADOW and SONS, INC.



A



B



C



D



E



F



G



H

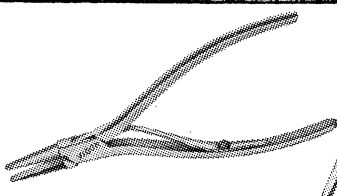


J

VIGOR® PRECISION PLIERS

Drop forged of the finest tool steel. All have fully polished heads and red cushion grip non-slip handles. Perfectly proportioned for all day production use. Points taper to 1/16" on all long nose pliers except PL-118 which tapers to 3/32". Available with and without coil spring as indicated.

| Fig. | Stock No. | Length Overall Jaws | Description | List Price | Fig. | Stock No. | Length Overall Jaws | Description | List Price |
|------|-----------|---------------------|--|------------|------|-----------|---------------------|--|------------|
| A | PL-108 | 5" | Chain Nose — Side Cutting — Serrated Jaws | \$2.75 | D | PL-118 | | Curved Slim Nose — Serrated Jaws — Coil Spring | 3.76 |
| A | PL-110 | 5 1/2" | Chain Nose — Side Cutting — Serrated Jaws | 2.82 | E | PL-119 | 5 1/2" | Chain with Cutter Tips and Centering Pin — Smooth Jaws — Coil Spring | 4.90 |
| A | PL-111 | 6" | Chain Nose — Side Cutting — Serrated Jaws | 2.88 | F | PL-120 | 4 1/2" | Semi-Flush Diagonal with Coil Spring | 3.50 |
| A | PL-112 | 5" | Chain Nose — Side Cutting with Coil Spring — Serrated Jaws | 3.85 | F | PL-121 | 5" | Semi-Flush Diagonal with Coil Spring | 3.78 |
| A | PL-113 | 5 1/2" | Chain Nose — Side Cutting with Coil Spring — Serrated Jaws | 3.12 | F | PL-122 | 6" | Semi-Flush Diagonal with Coil Spring | 4.44 |
| A | PL-114 | 6" | Chain Nose — Side Cutting with Coil Spring — Serrated Jaws | 3.18 | G | PL-123 | 4 1/2" | Electricians Diagonal | 2.68 |
| B | PL-115 | 6" | Long Chain Nose — Serrated Jaws | 2.88 | G | PL-126 | 5" | Electricians Diagonal | 2.80 |
| B | PL-116 | 6" | Long Chain Nose with Coil Spring — Serrated Jaws | 3.36 | G | PL-127 | 6" | Electricians Diagonal | 3.36 |
| C | PL-117 | 5 1/2" | Slim Nose — Serrated Jaws — Coil Spring | 3.30 | H | PL-130 | 6" | Box Joint — Long Slim Nose — Coil Spring | 4.20 |
| | | | | | J | PL-131 | 5" | Box Joint Diagonal Cutter | 4.10 |



A



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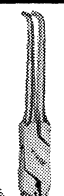
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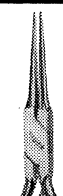
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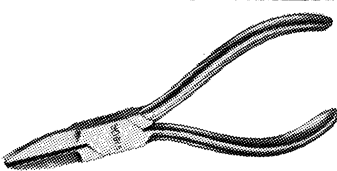
N

VIGOR® SWEDISH STEEL BOX JOINT ELECTRONIC PLIERS

For Special Purpose Applications

Fully polished from head to handle. Lightweight for miniature assembly and soft wire cutting and bending. Very popular with female production workers because special designs reduce fatigue yet box joints and Swedish steel add strength and durability. For cushion grips specify CG after stock number and add 25¢ per plier.

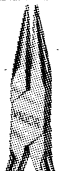
| Fig. | Stock No. | Length Overall Jaws | Description | List Price | Fig. | Stock No. | Length Overall Jaws | Description | List Price |
|------|------------|---------------------|---|------------|------|---------------|---------------------|---|------------|
| A | PL-1005 | 4 3/4" | Flat Nose — Smooth Jaw Light Work | \$3.20 | F | PL-217C | 4 1/8" | Oblique Flush Nipper with Adjustment Screw — Straight Handles | 8.00 |
| A | PL-1105 | 4 3/4" | Chain Nose — Smooth Jaws Light Work | 3.20 | F | PL-219 | 4 1/8" | Oblique Flush Nipper with Adjustment Screw Curved Handles | 8.00 |
| A | PL-1205 | 4 3/4" | Chain Nose — Light Work | 3.20 | F | PL-219N | 4 1/8" | Same as PL-219 but Nicked and with Leaf Spring | 14.75 |
| B | PL-281 | 4 1/2" | Flat Nose — Smooth Jaws Delicate Work Only | 2.95 | G | PL-204 1/2 E | 4 1/2" | Chain Nose with Cutter Coil Spring Only — Smooth Jaws | 6.75 |
| B | PL-286 | 4 1/2" | Chain Nose — Smooth Jaws Delicate Work Only | 2.95 | G | PL-704 1/2 E | 4 1/2" | Chain Nose with Cutter Coil Spring Only — Serrated Jaws | 6.75 |
| B | PL-291 | 4 1/2" | Round Nose — Delicate Work Only | 2.95 | H | PL-204 1/2 L | 4 1/2" | Chain Nose with Curved Tips Smooth Jaw — Coil Spring Only | 5.50 |
| C | PL-297 | 4 1/2" | Flush Midget Diagonal Cutter for Soft Wire Only — Coilspring Only | 7.35 | I | PL-39 | 4 1/2" | Wire Coiling Plier with Stepped Nose | 4.30 |
| D | PL-301 | 4 1/2" | Flush Pointed Midget — Diagonal Cutter for Soft Wire Only — Coilspring Only | 7.20 | J | PL-1405 1/2 F | 5 1/2" | Long Chain Nose with Flush Cut Nipper Tips Leaf Spring Only | 8.20 |
| E | PL-804 1/2 | 4 1/2" | Flush Right Angle End Cutter for Soft Wire Leaf Spring Only | 7.20 | K | PL-1405 1/2 H | 5 1/2" | Curved Needle Nose — Serrated Tips | 7.45 |
| E | PL-850 | 4 1/2" | Same as 804 1/2 but with Square Handles no springs | 7.35 | L | PL-1406 J | 6" | Long Needle Nose with Curved Tips Smooth Jaws | 7.45 |
| E | PL-904 1/2 | 4 1/2" | Flush Oblique Angle End Cutter for Soft Wire Leaf Spring Only | 7.45 | M | PL-1406 K | 6" | Fine Long Needle Nose — Smooth Jaw | 7.10 |
| E | PL-950 | 4 1/2" | Same as 904 1/2 but with square Handles no spring | 7.35 | M | PL-1456 K | 6" | Fine Long Needle Nose — Serrated Jaw | 7.10 |
| F | PL-217 | 4 3/8" | Oblique Flush Nipper with Adjustment Screw — Straight Handles | 8.00 | N | PL-1406 L | 6" | Long Chain Nose Plier — Smooth Jaw | 7.10 |
| | | | | | N | PL-1406 I | 6" | Long Chain Nose Plier — Serrated Jaw | 7.10 |



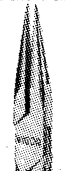
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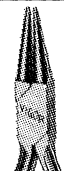
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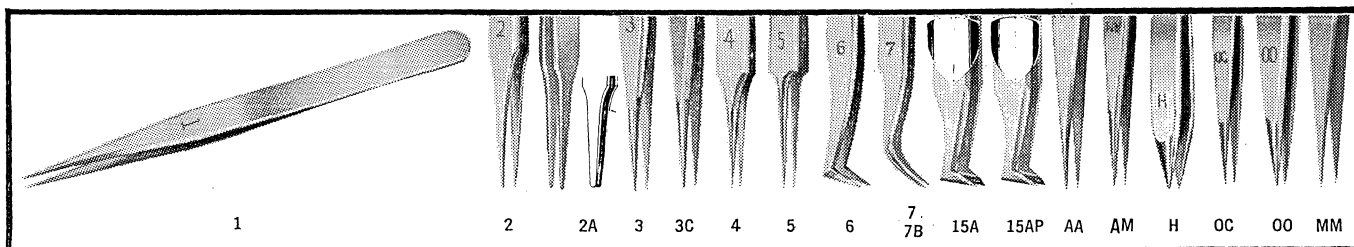
VIGOR

Tool Company

Division of: **B. JADOW and SONS, INC.****VIGOR® SWEDISH STEEL BOX JOINT JEWELERS PLIERS**

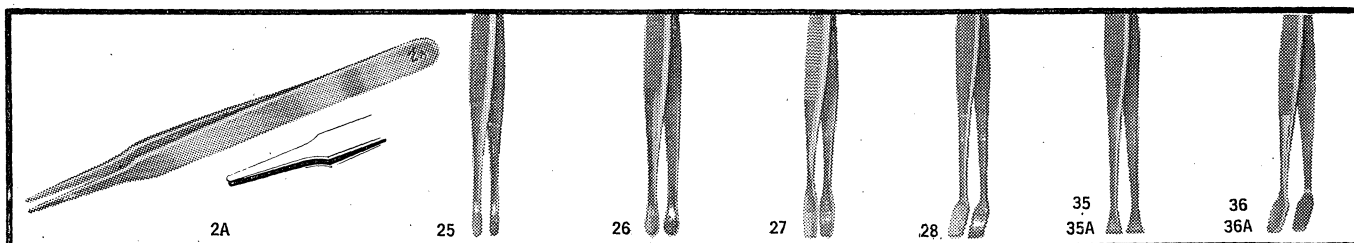
Drop forged of selected Swedish Tool Steel, carefully machined and heat treated. Hand finished and fully polished from head to handle. Box joints assure perfect alignment of points and cutting edges and guarantee durability. For Cushion Grips specify CG after stock number and add 25¢ per plier.

| Fig. | Stock No. | Length Overall Jaws | Description | List Price | Fig. | Stock No. | Length Overall Jaws | Description | List Price |
|------|-------------|---------------------|--------------------------------|------------|------|-------------|---------------------|------------------------------------|------------|
| A... | PL-104 | 4" | Flat Nose — Smooth Jaws | \$4.60 | D... | PL-1454 1/2 | 4 1/2" | Long Chain Nose — Serrated Jaws | 4.75 |
| A... | PL-604 | 4" | Flat Nose — Serrated Jaws | 4.60 | D... | PL-1405 | 5" | Long Chain Nose — Smooth Jaws | 5.00 |
| A... | PL-104 1/2 | 4 1/2" | Flat Nose — Smooth Jaws | 4.75 | D... | PL-1455 | 5" | Long Chain Nose — Serrated Jaws | 5.00 |
| A... | PL-604 1/2 | 4 1/2" | Flat Nose — Serrated Jaws | 4.75 | E... | PL-304 | 4" | Round Nose | 4.60 |
| A... | PL-105 | 5" | Flat Nose — Smooth Jaws | 5.00 | E... | PL-304 1/2 | 4 1/2" | Round Nose | 4.75 |
| A... | PL-605 | 5" | Flat Nose — Serrated Jaws | 5.00 | E... | PL-305 | 5" | Round Nose | 5.00 |
| B... | PL-1504 1/2 | 4 1/2" | Long Flat Nose — Smooth Jaws | 4.75 | F... | PL-404 | 4" | End Cutter | 5.65 |
| B... | PL-1554 1/2 | 4 1/2" | Long Flat Nose — Serrated Jaws | 4.75 | F... | PL-404 1/2 | 4 1/2" | End Cutter | 5.65 |
| B... | PL-1505 | 5" | Long Flat Nose — Smooth Jaws | 5.00 | F... | PL-405 | 5" | End Cutter | 5.95 |
| B... | PL-1555 | 5" | Long Flat Nose — Serrated Jaws | 5.00 | G... | PL-504 | 4" | Diagonal Cutter | 5.25 |
| C... | PL-204 | 4" | Chain Nose — Smooth Jaws | 4.60 | G... | PL-504 1/2 | 4 1/2" | Diagonal Cutter | 5.65 |
| C... | PL-704 | 4" | Chain Nose — Serrated Jaws | 4.60 | G... | PL-505 | 5" | Diagonal Cutter | 5.95 |
| C... | PL-204 1/2 | 4 1/2" | Chain Nose — Smooth Jaws | 4.75 | H... | PL-254 1/2 | 4 1/2" | Combination Pliers — Smooth Jaws | 6.15 |
| C... | PL-704 1/2 | 4 1/2" | Chain Nose — Serrated Jaws | 4.75 | H... | PL-754 1/2 | 4 1/2" | Combination Pliers — Serrated Jaws | 6.15 |
| C... | PL-205 | 5" | Chain Nose — Smooth Jaws | 5.00 | H... | PL-255 | 5" | Combination Pliers — Smooth Jaws | 6.40 |
| C... | PL-705 | 5" | Chain Nose — Serrated Jaws | 5.00 | H... | PL-755 | 5" | Combination Pliers — Serrated Jaws | 6.40 |
| D... | PL-1404 1/2 | 4 1/2" | Long Chain Nose — Smooth Jaws | 4.75 | | | | | |


VIGOR® SWISS PRECISION TWEEZERS For MINIATURE and MICROMINIATURE ASSEMBLY
 Precise Sharp and Shaped Points

VIGOR Swiss Precision Tweezers are made in carbon (C), non-magnetic steel (NM), stainless steel (SS), carbon steel with nickel plating (CNP), and brass (B), as indicated below. Non-magnetic VIGOR Tweezers will not rust and are acid resistant. All points are ground flat on the inside. Beveled and rounded points refer to the outside diameter.

| Style No. | Vigor Stock No. | Type Steel Used | Total Length | Points | List Price | Style No. | Vigor Stock No. | Type Steel Used | Total Length | Points | List Price |
|-----------|-----------------|-----------------|--------------|------------------------|------------|-----------|-----------------|-----------------|--------------|----------------------|------------|
| 1... | TW-201 | C | 4 3/4" | Beveled — Sharp | \$2.25 | 6... | TW-206 | C | 4 1/4" | Beveled — Sharp | \$3.50 |
| 1... | TW-601 | NM | 4 3/4" | Beveled — Sharp | 3.25 | 6... | TW-606 | NM | 4 1/4" | Beveled — Sharp | 4.50 |
| 1... | TW-701 | SS | 4 3/4" | Beveled — Sharp | 2.65 | 6... | TW-706 | SS | 4 1/4" | Beveled — Sharp | 3.90 |
| 2... | TW-202 | C | 4 3/4" | Beveled — Dull | 2.45 | 7... | TW-207 | C | 4 3/8" | Round — Sharp | 3.50 |
| 2... | TW-602 | NM | 4 3/4" | Beveled — Dull | 3.45 | 7... | TW-607 | NM | 4 3/8" | Round — Sharp | 4.50 |
| 2... | TW-702 | SS | 4 3/4" | Beveled — Dull | 2.85 | 7... | TW-707 | SS | 4 3/8" | Round — Sharp | 3.90 |
| 2A... | TW-602A | NM | 4 3/4" | Dull — Flat .050" tip. | 4.50 | 7B... | TW-207B | C | 4 3/8" | Same as #7 with | |
| 3... | TW-203 | C | 4 3/4" | Round — Sharp | 2.45 | 7B... | TW-707B | SS | 4 3/8" | Serrated tip | 3.90 |
| 3... | TW-603 | NM | 4 3/4" | Round — Sharp | 3.45 | 15A... | TW-215A | C | 4 1/4" | Flush Cutting Nipper | 8.25 |
| 3... | TW-703 | SS | 4 3/4" | Round — Sharp | 2.85 | 15AP... | TW-215AP | C | 4 1/4" | Flush Cutting Nipper | 8.25 |
| 3C... | TW-203C | C | 4 1/4" | Round — Sharp | 2.45 | AA... | TW-301 | CNP | 4 3/8" | Beveled — Medium | 1.25 |
| 3C... | TW-603C | NM | 4 1/4" | Round — Sharp | 3.45 | AM... | TW-363 | B | 5" | Round — Sharp | 1.80 |
| 3C... | TW-703C | SS | 4 1/4" | Round — Sharp | 3.30 | H... | TW-229 | C | 3 1/2" | Stubby — Sharp | 2.25 |
| 4... | TW-204 | C | 4 1/2" | Round — Sharp | 2.80 | H... | TW-729 | SS | 3 1/2" | Stubby — Sharp | 2.65 |
| 4... | TW-604 | NM | 4 1/2" | Round — Sharp | 3.90 | OC... | TW-230C | C | 3 1/2" | Round — Sharp | 2.65 |
| 4... | TW-704 | SS | 4 1/2" | Round — Sharp | 3.30 | OC... | TW-730C | SS | 3 1/2" | Round — Sharp | 3.05 |
| 5... | TW-205 | C | 4 3/8" | Round — Sharp | 3.20 | OO... | TW-200 | C | 4 1/2" | Heavy — Dull | 2.65 |
| 5... | TW-605 | NM | 4 3/8" | Round — Sharp | 4.20 | OO... | TW-700 | SS | 4 1/2" | Heavy — Dull | 3.05 |
| 5... | TW-705 | SS | 4 3/8" | Round — Sharp | 3.60 | MM... | TW-306 | CNP | 5" | Beveled — Medium | 1.35 |

**VIGOR® SEMI-CONDUCTOR TWEEZERS**

Mirror-smooth finish will hold discs such as germanium and silicone wafers without scratching surface. Large surface provides positive grip. Thin edge permits simple pick-up. Available in nickel finish; stainless steel or non-magnetic, anti-acid steel as indicated below.

| Vigor Stock No. | Pattern | Description | List Price | Vigor Stock No. | Pattern | Description | List Price |
|-----------------|---------|---|------------|-----------------|---------|--|------------|
| TW-602A | 2A | Thin extra narrow jaws. Approximate width at tip .050". Rustless — Length 4 3/4" | \$3.45 | TW-328 | 28 | Oblong and offset jaws. Approximate width at tips 3/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4" | 1.95 |
| TW-702A | 2A | Same as above but stainless | 2.85 | TW-335 | 35 | Medium flange jaws. Approximate width at tip 1/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4 3/4" | 1.95 |
| TW-902A | 2A | Same as above but Carpenter 20 steel | 5.00 | TW-335A | 35A | Same as above but Rustless, Non-magnetic and Anti-acid | 3.50 |
| TW-325 | 25 | Thin narrow round jaws. Approximate width at tip 1/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4 3/4" | 1.75 | TW-336 | 36 | Oblong and Offset jaw. Approximate width at tip 1/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4 3/4" | 1.95 |
| TW-326 | 26 | Thin round jaws. Approximate width at tip 1/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4 3/4" | 1.75 | TW-336A | 36A | Same as above, but Rustless, Non-magnetic and Anti-acid | 3.50 |
| TW-327 | 27 | Oblong and offset jaws. Approximate width at tips 3/16". Serrated handle grip. Carbon Steel, Nickel Plated — Length 4" | 1.75 | | | | |